

**Notice of Allowability**

Application No.

10/566,666

Examiner

THOMAS A. CONWAY

Applicant(s)

SHIRAHATA ET AL.

Art Unit

2624

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 9/14/2010.
2. ☒ The allowed claim(s) is/are 1-20.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some\* c) ☐ None of the:
- ☒ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
- \* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).**
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

- |  |  |
|--|--|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892)   | 5. <input type="checkbox"/> Notice of Informal Patent Application  |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 6. <input checked="" type="checkbox"/> Interview Summary (PTO-413),<br>Paper No./Mail Date <u>20100924</u> . |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO/SB/08),<br>Paper No./Mail Date _____    | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment  |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit<br>of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance                         |
|  | 9. <input type="checkbox"/> Other _____.   |

/Thomas A. Conway/  
Examiner, Art Unit 2624



## **DETAILED ACTION**

### ***Response to Arguments***

Applicant's arguments, see Remarks, filed 9/14/2010, with respect to rejection of claims 1-20 under 35 USC 103, and in light of Applicant's amendment, have been fully considered and are persuasive. The rejection of claims 1-20 35 USC 103 are hereby expressly withdrawn.

Applicant's arguments, see Remarks, filed 9/14/2010, with respect to rejection of claim 1 under 35 USC § 112, 2<sup>nd</sup> ¶, and in light of Applicant's amendment, have been fully considered and are persuasive, therefore, rejection of claims under 35 USC § 112, 2<sup>nd</sup> ¶ is expressly withdrawn.

## **EXAMINER'S AMENDMENT**

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Paul Teng on September 24, 2010.

Please replace the **Title** with this: "Medical image diagnosis support device and method for calculating degree of deformation from normal shapes of organ regions".

***Allowable Subject Matter***

**Claims 1-20 are allowed.**

The following is an examiner's statement of reasons for allowance:

Claims 1 and 11 are allowable because, prior art of record taken alone or in combination, fails to disclose or render obvious an apparatus or method comprising an organ region setting step of setting organ regions in medical images obtained by a medical imaging device; a deformation calculating step of calculating a deformation set of geometric parameters related to deformation from normal shapes of the organ regions set in the organ region setting step; a reference storing step of storing a reference set of geometric parameters related to normal shapes of the organ regions; a lesion detecting step of comparing the reference set of geometric parameters stored in the reference storing step with the deformation set of geometric parameters calculated

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in the deformation calculating step, and detecting existence of lesion in an organ region from amongst the organ regions set in the organ region setting step, from a result of the comparison; and an informing step of providing at least visual information informing the existence of the lesion, wherein the visual information includes a chart showing changes of geometric parameters as between the deformation set of geometric parameters of a deformed organ and the reference set of geometric parameters, in combination with the rest of the limitations of claims 1 and 11.

Claims 2-10 and 12-20 are allowable because they are dependent on claim 1 or claim 11 or an intermediate claim.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to THOMAS A. CONWAY whose telephone number is (571)270-5851. The examiner can normally be reached on Monday through Friday 8AM - 5PM EST.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bhavesh Mehta can be reached on 571-272-7453. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Thomas A. Conway/  
Examiner, Art Unit 2624

/Tom Y Lu/  
Primary Examiner, Art Unit 2624